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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,947	08/06/2003	Stuart L. Roberts	108298729US	1224

25096 7590 03/24/2005

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EXAMINER

EVANS, GEOFFREY S

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,947

Applicant(s)

ROBERTS ET AL.

Examiner

Geoffrey S Evans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-45 is/are allowed.
- 6) ☒ Claim(s) 1-24, 27-30, 33-36, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 25, 26, 31, 32, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20031112.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The abstract of the disclosure is objected to because the last two sentences of the abstract do not contain subject matter relating to the invention. Correction is required. See MPEP § 608.01(b).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-24, 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in U.S. Patent No. 5,891,796 in view of Smith in U.S. Patent No. 3,553,417 and Minami et al. in Japan Patent No. 54-158,081. Nakamura et al. discloses a wire bonding device with a capillary that discloses using movable discharge electrodes (elements 7,8) to remove a covering film from a wire but does not disclose severing the wire with the electrodes. Smith teaches using an electrode to cut the wire

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so that the device is compact and able to reliably sever the wire (e.g. see column 1, lines 35-53. Minami et al. teaches placing a wire between two electrodes to sever the wire with an arc while also forming a ball at the end of the wire. It would have been obvious to adapt Nakamura et al. in view of Smith and Minami et al. to provide this to reliably sever the wire and create a ball at the end of the wire for the next wire bonding operation.

5. Claims 30,33-36,39,40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in U.S. Patent No. 5,891,796 in view of Smith in U.S. Patent No. 3,553,417, Minami et al. in Japan Patent No. 54-158,081 and Eldridge et al. in U.S. Patent No. 6,336,269. Nakamura et al. discloses a wire bonding device with a capillary that discloses using movable discharge electrodes (elements 7,8) to remove a covering film from a wire but does not disclose severing the wire with the electrodes. Smith teaches using an electrode to cut the wire so that the device is compact and able to reliably sever the wire (e.g. see column 1, lines 35-53. Minami et al. teaches placing a wire between two electrodes to sever the wire with an arc while also forming a ball at the end of the wire. Eldridge teaches a computer running software (see column 43, lines 1-14) for controlling a wire bonding apparatus. It would have been obvious to adapt Nakamura et al. in view of Smith, Minami et al. and Eldridge et al. to provide this to have an automatic wire bonder that reliably severs the wire and can simultaneously create a ball at the end of the wire.

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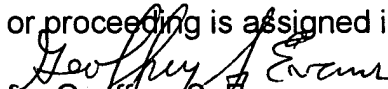
6. Claims 25,26,31,32,37, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 41-45 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

GSE


Geoffrey S. Evans
Primary Examiner
Group 1700